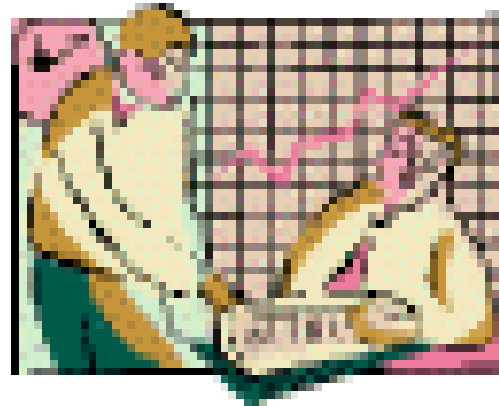


Quadrennial Actuarial Audit of the Virginia Retirement System



July 9, 2001



Purpose and Scope of the Actuarial Audit Review

- Actuarial Valuation as of June 30, 2000
 - State Employees, Teachers, State Police, Judicial and Law Officers
 - Sample of local government employers

Scope of Audit

	Technical Checking	Professional Judgment
Actuarial Cost Method		✓
Actuarial Asset Method		✓
Actuarial Assumptions		✓
Actuarial Report	✓	✓
Valuation Data	✓	
Test Cases	✓	



Statement of Key Findings

- The work is reasonable and performed in accordance with generally accepted actuarial principles and practices.
- Actuarial methods and assumptions are reasonable and appropriate, and
- The work was performed by fully qualified actuaries.

Evidence of Key Findings

- Data is reasonable and appropriate
- Test cases were accurate
- Funding methodology meets applicable professional standards
- Actuarial assumptions are reasonable, individually and in the aggregate
- Primary report complies with applicable professional standards



Types of Audit Comments

- Further investigation recommended
- Alternative professional approaches

Actuarial Cost Method

- Entry Age Normal Method
- Uses “new entrant” normal cost rather than being based on entire active population
- Recommend change to “total” normal cost rate



Actuarial Assumptions

- Recommend gender distinct mortality rates for State Police
- Recommend specific assumption regarding purchases of future service



Primary Actuarial Report

- Termination rates are misstated in report
- A few minor assumptions are omitted in summary of actuarial assumptions



Actuarial Reports for Local Government Employers

- Do not fully comply with professional standards
 - Do not have plan summaries or assumption summaries
 - Not signed by an actuary



Data Review

- Some inconsistencies found in report not affecting results

Actuarial Computations

- Service related disabilities not calculated in accordance with VRS' procedures
- Credited service is estimated rather than using actual data
- Neither of these would be expected to materially impact valuation results